

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

FYI

Application for Reissue of:

MICHAEL R. HATCH and
CHAK M. LEUNG

U. S. Patent No. 5,282,103

Issued: January 25, 1994

For: MAGNETIC HEAD SUSPENSION
ASSEMBLY FABRICATED WITH
INTEGRAL LOAD BEAM AND
FLEXURE

Reissue Application No: 08/521,786
Filed: August 31, 1995

Group Art Unit: 2512

Examiner:

JUN 13 1995

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Supplemental Declaration
(37 CFR §1.175)

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

We, MICHAEL R. HATCH and CHAK M. LEUNG, the undersigned
petitioners, declare:

1. As a party to Interference No. 103,228, we were informed of the
decision dated March 20, 1996 in which the Administrative Patent Judge (APJ)
ordered that all claims of the above-referenced reissue application be
designated as corresponding to the count. As to separately patentable
inventions, the APJ stated that we would be free to present claims to such in our
reissue application during *ex parte* proceedings.

2. Accordingly, on April 19, 1996 we filed an amendment to our
reissue application, canceling claims 23-35. These claims are directed to
subject matter which we believe ourselves to be entitled to, including claims
which correspond substantially to U.S. Patent Nos. 5,434,731 and 5,428,490.

3. Through our attorneys, we recently learned of the existence of
U.S. Patent No. 5,504,640 (hereinafter "the '640 patent"). The '640 patent is a
continuation of Ser. No. 2,94,664 filed August 22, 1994 (now Pat. No.
5,428,490), which is a division of Ser. No. 975,352 ("the '352 application") filed
November 12, 1992. (The '352 application of Party Hagen is involved in the
above-referenced interference proceeding.) The sole claim of the '640 patent
recites, "An elongated flexure for supporting a magnetic head in a disc drive,

the flexure including a rigid beam section and a gimbal section formed of a single piece of planar material, the gimbal section further including a load point tab, the gimbal section further comprising: a load point button of a desired shape and at a desired location on the load point tab, the load point button formed by etching away substantially one-half of the thickness of the planar material of the load point tab in an area immediately surrounding the desired shape and location of the load point button." We believe ourselves to also be entitled to the subject matter of this claim.

4. In view of the aforementioned decision of the APJ which considered claims 23-35 separately patentable, we intend to re-present these claims in *ex parte* prosecution. Moreover, because we believe we are also entitled to the subject matter set forth in claim 1 of the '640 patent, we further intend to present a claim identical to claim 1 of the '640 patent during *ex parte* prosecution.

5. During discussions with our attorneys which took place in early June, 1996 we discovered several additional errors in the specification and claims of our reissue application filed August 31, 1995 which we believe render claims 1-22 at least partially inoperative. These errors were clerical in nature and arose, without any deceptive intent, from an oversight of our attorneys and ourselves during the review of our reissue application. Specifically, column 5, line 60 contains an error in that the term "cutouts 74" should have been deleted (i.e., bracketed) in the reissue application. The correct inserted wording, -- flexure beams 68 by spaces 74 --, appears below this wording in the reissue application. This error occurred as a result of an inadvertent oversight during the application review process. Additionally, claims 1 and 13 contain an error in the use of the past tense word "narrowed", which might be interpreted as connotating a certain fabrication process. The correct word for both claims is -- narrow --. The above errors, having been made without deceptive intent, are corrected by way of an amendment filed herewith.

6. In paragraph 10 of our original declaration in support of our application for reissue of the '103 patent, we stated that the specification and Figure 6C in the drawings contained an error with respect the designation of the adhesive fillets that fasten the slider to outriggers 72. Accordingly, in order to show correct correspondence with the drawings, column 5, line 61 was changed from "an adhesive fillet 90" to -- adhesive fillets 61 --. A similar correction was made to the specification in column 5, lines 65-66.

7. Furthermore, in column 1, line 56, the phrase "load dimple" was changed to -- protrusion, commonly know as a load dimple, --. The phrase "load dimple" is a term of art that commonly refers to an outwardly extending or protruding member that contacts the head in a suspension assembly. However, the word "dimple", by itself, has general meaning as an indentation. Therefore, the specification has been changed to indicate the phrase "load dimple" as being equivalent to a "protrusion", which more clearly defines the essential characteristic of the corresponding element in the invention. Thus, column 2 of the specification recites "a load supporting protrusion or dimple" to indicate the

interchangability of the two wordings. Having correctly established this meaning, the remainder of the specification is unchanged (i.e., the element is simply referred to as a "dimple" or "load dimple").

8. Paragraphs 11 and 12 of our declaration states that the terminology in the specification and claims that refers to a "cutout portion" is misdescriptive; it explains that the surrounding flexure structure results from the formation of the shaped opening according to our invention. Thus, the portion of the specification in column 2, lines 47-58 was replaced by language which accurately recites the relationship of the elements of our invention. Because it was misdescriptive to state that the "cutout portion" delineates the shape of the tongue, the language in column 4, lines 5-8, of the '103 patent were changed to correctly recite that the tongue delineates the U-shape of the opening. Since the "cutout portion" is not a physical element that can be disposed next to or connected with another physical element, column 4, lines 21-23 were also changed to positively recite the flexure beams as being defined by the shaped opening.

9. As further stated in paragraph 13 of our earlier declaration, we believe that the terms "leg" and "lateral ear" -- as they are used throughout the specification and claims -- are ambiguous, vague, and misdescriptive. To correct this error we amended the specification and claims, replacing the term "leg" with -- flexure beam --, and substituting -- lateral ear -- with "transverse section". Specifically, changes were made in column 4, lines 25, 28, 30, 36, 54; and column 5, lines 48, 54-56, 61; in addition to corresponding changes made to the portions of the specification discussed above.

10. Furthermore, in column 5, lines 54-55 of the original patent, "Narrow etched legs 68" was changed to -- Narrow, thinly etched flexure beams 68 -- to overcome a latent ambiguity in the original language, wherein it could be construed that the flexure beams are made narrow by etching. Although this is one possible way of practicing our invention, the correction to the specification makes clear that the flexure beams are chemically etched thin in the described embodiments for increased flexibility. (See column 4, lines 24-25).

11. In column 4, line 61, the ambiguous term "cutouts 74" was replaced with the term -- spaces 74 -- since "cutout" may be incorrectly interpreted as unduly limiting the formation of element 74 to a particular method of fabrication (e.g., stamping). By way of example, Figure 6A shows the reference numeral 74 as referring to the spaces that extend laterally between flexure beams 68 and outriggers 72.

12. In paragraph 15 of our original declaration we stated that claim 1 of the '103 patent was amended to correct indefiniteness resulting from the use of the above-mentioned terminology. To be specific, "magnetic" was deleted in line 1 since it is not the head suspension itself that is magnetic. The transition word --comprising: -- was used as standard preamble wording. The use of "and" in line 2 was incorrect, and was replaced by -- having --. In lines 2-3,

"disposed on said slider" was changed to correctly indicate that the transducer is -- mounted thereon -- with respect to the slider. In claim 1, line 5, the phrase "of a specified thickness" was deleted as an unnecessary limitation. The changes to claim 1, lines 7-10, particularly point out that the shaped opening defined the flexure beams rather than the beams defining a "cutout portion". As stated in our original declaration, the terms in claims 1-22 referring to "a lateral ear", "narrow legs", or "cutout portion" have been changed to their proper referents, as explain previously. Also, the term "dimple" has been replaced by the phrase -- supporting protrusion --, as discussed in paragraph 7 above. At the end of claim 1, the language "so that pitch and roll stiffness is effectively reduced" has been replaced with language that correctly states that load transfer from the air bearing slider to the single integral planar piece is effectively separated from the gimbling action of the air bearing slider. This change is supported in the original '103 patent by the last full paragraph of column 4; column 5, lines 27-38; and the last full paragraph of column 7.

13. In claim 2, the word "head" was replaced by -- air bearing -- to provide proper antecedent basis for the slider element. A similar change was made in claim 3, lines 2-3. Claims 3, 14, 19, and 20 also include the insertion -- further -- before "including" to correctly indicate an in additional element limitation. In claim 6, the phrase "air bearing" was inserted before the word "slider" to provide antecedent basis. In claim 7 and 8, the wording "of said slider" was deleted. Additionally, in claim 7, the word -- a -- was inserted before "step" to provide definiteness to the claim. Claim 9 was amended to limit the assembly of claim 1 to a load beam section and transverse section having a first thickness. This change is supported, for example, in column 4, third paragraph, of the original '103 patent. The change in language in claim 11 is similarly supported by the above passage. The change in language to claim 12 is supported by various figures in the drawings, including Figure 5A, 6A, and the disclosure in column 4, lines 3-25. The changes to claim 13 correct indefiniteness in the original claim and recite that the load beam section has a rear end opposite the narrow end, and further including a leaf spring section attached at the first end at the rear end of the load beam section. The correct relationship between the leaf spring section, load supporting protrusion, mount section, and actuator arm are recited in the claim and supported in the original '103 patent in column 5, lines 12-26 and Figures 1A-12 in the drawings. Claim 14 also includes language stating that the swage plate is joined to the mount section for attachment to the actuator arm. Claim 15 was amended to recite the flange element as being integral with the sides of the load beam section. Support for this change is found in the original patent in Figures 1A-12, and the second to last full paragraph of column 4. Likewise, the changes made to claim 16 are supported by the above disclosure. The changes made in claim 17 which recite that the leaf spring section includes a trapezoidal-like opening, is supported in column 5, lines 12-14, and in Figures 1A-12. Support for the changes to claim 18, which recite that the load supporting protrusion is located along a centerline of the air bearing slider, is found in column 5, lines 66 through column 6 line 5, and in Figures 1A-12. Support for the changes for claim 19 is found in column 4, lines 12-20 of the original '103 patent. The

changes to claim 20 are supported by Figures 13 and 13A and the disclosure in column 6, last full paragraph. Finally, claim 22 was amended to replace the terminology "lateral ear" with -- transverse section --, as explained above, and to further recite that the transverse section includes bent sections for attachment to the air bearing slider. Support for these changes is found, by way of example, in Figures 14A-14C and column 7, lines 1-14.

14. In addition to the deficiencies of the specification and claims discussed above, we further believe that the claims set forth in the '103 patent are deficient with respect to the omission of at least one claim to the subject matter claimed in the '640 patent, to which we believe ourselves to also be entitled. These insufficiencies, which render the '103 patent at least partially inoperative, arose as a result of the assignee READ-RITE CORPORATION, its attorneys, and ourselves, through error and without any deceptive intent, having failed, before the '103 patent issued, to have expressly claimed certain embodiments disclosed in the specification and drawings. These insufficiencies also arose because before the '103 patent issued, the assignee, the assignee's attorneys, and ourselves, through error and without any deceptive intent, accepted claims which did not set forth certain embodiments of the invention disclosed in the '103 patent.

15. We, the undersigned petitioners, declare further that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any reissue patent issued thereon.

Dated: 6/11/96

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